ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife & Parks
Shanley Creek fish screen & water conservation

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that direct Montana Fish, Wildlife & Parks (FWP) to administer a Future Fisheries Improvement Program (FFIP). The program involves providing funding for physical projects to restore degraded fish habitat in streams and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. This legislation was amended again in 2013 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the FFIP.

The FFIP is proposing to provide partial funding to a project calling for the replacement of a non-functional paddlewheel fish screen with a flat plate screen and the installation of a headgate. The goal of the project is to eliminate fish entrainment and improve control of diverted stream flow. Although the project will primarily benefit westslope cutthroat trout, Shanley Creek is considered a bull trout core area stream.

I. Location of Project:

The project site is located on Shanley Creek, a tributary to Cottonwood Creek, within Township 15 North, Range 13 West, Section 3 in Powell County (Attachment 1). It is located about 3 miles southeast of the town of Woodworth.

II. Need for the Project:

One goal within FWP's Statewide Fisheries Management Plan for the fisheries management program is to "protect, maintain, and restore native fish populations, their habitats, life cycles, and genetic diversity to ensure stewardship of native species and to ensure angling opportunities whenever possible." By implementing habitat restoration projects through the FFIP, this critical goal can be achieved. This project could reduce fish entrainment and better control diverted flows, potentially improving habitat for westslope cutthroat trout, a federally sensitive species, and Montana "Species of Concern."

III. Scope of the Project:

This project involves replacing a non-functional paddlewheel fish screen (Photo 1) with a flat plate screen (Photo 2) and installing a new headgate. These improvements are meant to prevent fish entrainment and better control diverted water flow, the maximum amount of available water and fish in the stream as possible. The original fish screen was installed over 20 years ago and coincided with an improvement in the westslope cutthroat trout population.

The total estimated cost for this project is $36,675. Of this total, the FFIP would be contributing up to $15,250. The remaining funds will come from other sources and from in-kind services:

Contributor	In-kind services	In-kind cash
U.S. Fish and Wildlife Service		$10,000
Big Blackfoot Chapter of Trout Unlimited (applicant)	$3,600	$7,825
TOTAL = $21,425		

This project will obtain the proper permits for construction. A 310 permit (Montana Natural Streambed and Land Preservation Act) will be obtained from the local conservation district, and the U.S. Army Corps of Engineers will be contacted for requirements to meet the federal Clean Water Act (404 permit).

IV. Environmental Impact Review Checklist:

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment

Project Title: Shanley Creek Restoration
Division/Bureau: Fisheries Division / Habitat Bureau (FFIP)
Description of Project: The FFIP tentatively plans to provide partial funding to a project calling for the installation of a headgate and the replacement of a non-functional paddlewheel fish screen with a flat plate screen. The goal of the project is to eliminate fish entrainment and improve control of diverted stream flow.

A. POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture				X		
2. Air quality or objectionable odors				X		
3. Water quality, quantity and distribution (surface or groundwater)			X			X
4. Existing water right or reservation				X		X
5. Vegetation cover, quantity and quality			X			X
6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats			X			X
8. Unique, endangered, or fragile wildlife or fisheries species			X			X

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of species			X			X

V. Explanation of Potential Impacts on the Physical Environment

3. Water quantity, quality, and distribution.

No changes in stream flow would occur in Shanley Creek as a result of the proposed project. The proposed headgate would more efficiently control stream flows but not change the quantity or distribution of water. Short-term increases in turbidity will occur from installation of the headgate and fish screen, but will primarily impact the irrigation diversion. To minimize turbidity, operation of equipment in the stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota (318 authorization).

4. Existing water right or reservation:

This project will reduce entrainment while ensuring delivery of all legal water rights.

5. Vegetation cover, quantity and quality.

This project will impact the vegetation in the immediate area for staging, mobilization of equipment, and construction. The project site will be revegetated or restored to meet or exceed pre-construction conditions.

7. Terrestrial and aquatic life habitats.

Construction activities that will affect terrestrial and aquatic life habitats will be short-term and involve the installation of the headgate and replacement of the fish screen into the irrigation ditch. Because the majority of the construction will not occur on Shanley Creek and will occur in a confined area (the fish screen will be 12.5 feet long), the impact to aquatic life is expected to be minimal. Long term, this project should increase aquatic habitats, by keeping fish in Shanley Creek and out of the irrigation ditch.

8. Unique, endangered, or fragile wildlife or fisheries species.

This project will affect westslope cutthroat trout, federally identified as sensitive and a "Species of Concern" in Montana. The impacts are predicted to be positive, maintaining

or increasing recruitment and survival of these species.

10. Changes to abundance or movement of species.

Long term, this project will eliminate entrainment and keep fish in Shanley Creek. The positive impacts to aquatic life that were gained with the first fish screen are expected to be maintained or improved with this project. Westslope cutthroat trout are expected to stay in Shanley Creek, thereby positively affecting spawning success and survival in the Blackfoot River watershed.

B. POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects				X		
2. Land use				X		
3. Risk and/or health hazards				X		
4. Community impact				X		
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs				X		
7. Aesthetics and recreation				X		
8. Cultural and historic resources				X		X
9. Evaluation of significance				X		
10. Generate public controversy				X		

VI. Explanation of Impacts on the Human Environment.

8. Cultural and historic resources.

No cultural or historical resource impacts are anticipated. However, the State Historical Preservation Office will be notified of this project and any potential concerns will be addressed.

VII. Narrative Evaluation and Comment.

There are no anticipated cumulative effects. The long-term impacts to the physical and human environments are considered minor and positive.

VIII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no funding is provided through the FFIP, either the applicant would have to seek additional sources of funding to complete the project, or the existing non-functional fish screen would remain in place. Westslope cutthroat trout could be entrained in the irrigation ditch.

2. The Proposed Alternative

The proposed alternative intends to provide partial funding through the FFIP to install a functional headgate and replace a fish screen that is no longer functional. Westslope cutthroat trout would be kept out of the irrigation ditch.

IX. Environmental Assessment Conclusion Section

1. Other groups or agencies contacted or which may have overlapping jurisdiction:

   North Powell Conservation District, Montana Department of Natural Resources and Conservation, US Fish and Wildlife Service, US Army Corps of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

   None.

3. Is an EIS required?

   No. We conclude, from this review, that the proposed activities will have an overall positive impact on the physical and human environment, and will therefore not require the extensive analysis associated with an EIS.

4. Level of public involvement.

   The project application to the FFIP has been posted on the FWP webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the FFIP. The proposed project also will be reviewed by the Fish and Wildlife Commission, and funding will be contingent upon their approval. The EA will be distributed to all relevant state and federal agencies and landowners and will be published on the FWP webpage: **www.fwp.mt.gov**.

5. Duration of comment period?

   Public comment will be accepted through 11:59 PM on July 27, 2016.

6. Person(s) responsible for preparing the EA.

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Attachment 1

Photo 1: current (non functional) fish screen

Photo 2: New fish screen (flat panel) design